

WHAT IS CLAIMED IS:

- 1 1. A method, comprising:
2 receiving a selection of customer sites;
3 querying a database to determine geographical locations of the selected network
4 sites;
5 rendering, in a graphical user interface, representations of the selected customer
6 sites in a map at the geographical location of the selected sites in the map;
7 receiving selection of at least one network service provider (NSP);
8 querying the database to determine network infrastructure of the selected NSP and
9 geographical locations of the determined network infrastructure; and
10 rendering representations of the determined network infrastructure in a map at the
11 determined geographical locations of the determined network infrastructure to render a
12 visualization of the geographical locations of the selected customer sites and network
13 infrastructure of the selected at least one NSP in the map.
- 1 2. The method of claim 1, wherein the determined network infrastructure
2 comprises at least one of a switch and a network path, and wherein the network
3 infrastructure geographical location comprises at least one of a switch site location and a
4 route of the network path.
- 1 3. The method of claim 1, wherein the map comprises a street map, and
2 wherein the rendered map visualizes transportation corridors, and wherein the rendered
3 customer sites and network infrastructure are visualized superimposed over rendered
4 transportation corridors in the street map.
- 1 4. The method of claim 1, further comprising:
2 receiving user selection of one rendered customer site;
3 querying the database to determine information on the selected customer site; and
4 rendering the determined information on the selected customer site in a dialog
5 box.

1 5. The method of 1, further comprising:
2 querying connection information in the database to determine connections
3 between the rendered customer sites; and
4 rendering connections between the customer sites in the map to visualize the
5 determined connections.

1 6. The method of claim 5, further comprising:
2 receiving a query including search criteria with respect to a parameter concerning
3 network connectivity at the customer sites;
4 querying the database to determine connections between customer sites having
5 network connectivity information satisfying the search criteria included with the query;
6 and
7 rendering the determined connections in a different visual manner than those
8 connections that do not satisfy the search criteria.

1 7. The method of claim 5, wherein the connection information includes
2 information on at least one of connected sites, connection bandwidth, and connection
3 circuit types.

1 8. The method of claim 1, further comprising:
2 receiving a definition of a buffer region with respect to a selected customer site;
3 querying the database to determine NSP network infrastructure located within the
4 defined buffer region;
5 rendering the buffer region around the rendering of the selected customer site in
6 the map; and
7 rendering the determined NSP network infrastructure within the defined buffer
8 region in the map.

1 9. The method of claim 8, wherein NSP network infrastructure rendered
2 within the defined buffer region is rendered differently than NSP network infrastructure
3 rendered outside of the buffer region.

1 10. The method of claim 8, further comprising:
2 generating a report identifying at least one of: the network infrastructure located
3 within the buffer region, the NSP managing the identified network infrastructure, and a
4 distance of the identified network infrastructure from the selected customer site for which
5 the buffer region is defined.

1 11. The method of claim 1, wherein the network infrastructure includes
2 network switches and network paths, wherein rendering the representations of the
3 determined network infrastructure comprises rendering representations of the determined
4 switches in the map, further comprising:
5 querying the database to determine network paths between the network switches
6 rendered in the map; and
7 rendering the network paths between the network switches in the map.

1 12. The method of claim 11, wherein the map comprises a street map, and
2 wherein the network paths are rendered superimposed over transportation corridors
3 rendered on the map.

1 13. The method of claim 11, further comprising:
2 receiving user selection of a proposed path between the customer site and one
3 network switch;
4 rendering the proposed path in the map; and
5 generating and rendering information on the proposed path in the map, including
6 information on the distance of the proposed path.

1 14. The method of claim 1, further comprising:
2 receiving selection of a plurality of customer sites rendered in the map;
3 receiving a definition of parameters of a buffer region with respect to the selected
4 customer sites;
5 determining buffer regions for each of the selected customer sites satisfying the
6 defined parameters for the buffer region;

7 querying the database to determine NSP network infrastructure located within
8 each determined buffer region;
9 rendering each determined buffer region around each selected customer site in the
10 map; and
11 rendering the determined NSP network infrastructure within each defined buffer
12 region in the map.
13

1 15. The method of claim 14, further comprising:
2 generating a report identifying at least one of: the network infrastructure located
3 within the determined buffer regions; the NSPs managing the identified network
4 infrastructure within the determined buffer regions; and, for each selected customer site, a
5 distance of the identified network infrastructure from the selected customer site within
6 the buffer region for the selected customer site.

1 16. A system, comprising:
2 a processor;
3 an output device in communication with the processor;
4 code executed by the processor to cause the processor to perform:
5 (i) receiving a selection of customer sites;
6 (ii) querying a database to determine geographical locations of the selected
7 network sites;
8 (iii) rendering, in a graphical user interface, representations of the selected
9 customer sites in a map at the geographical location of the selected sites in the
10 map;
11 (iv) receiving selection of at least one network service provider (NSP);
12 (v) querying the database to determine network infrastructure of the
13 selected NSP and geographical locations of the determined network
14 infrastructure; and
15 (vi) rendering representations of the determined network infrastructure in
16 a map at the determined geographical locations of the determined network

17 infrastructure to render a visualization of the geographical locations of the
18 selected customer sites and network infrastructure of the selected at least one NSP
19 in the map.

1 17. The system of claim 16, wherein the determined network infrastructure
2 comprises at least one of a switch and a network path, and wherein the network
3 infrastructure geographical location comprises at least one of a switch site location and a
4 route of the network path.

1 18. The system of claim 16, wherein the map comprises a street map, and
2 wherein the rendered map visualizes transportation corridors, and wherein the rendered
3 customer sites and network infrastructure are visualized superimposed over rendered
4 transportation corridors in the street map.

1 19. The system of claim 16, wherein the code further causes the processor to
2 perform:
3 receiving user selection of one rendered customer site;
4 querying the database to determine information on the selected customer site; and
5 rendering the determined information on the selected customer site in a dialog
6 box.

1 20. The system of claim 16, wherein the code further causes the processor to
2 perform:
3 querying connection information in the database to determine connections
4 between the rendered customer sites; and
5 rendering connections between the customer sites in the map to visualize the
6 determined connections.

1 21. The system of claim 20, wherein the code further causes the processor to
2 perform:

3 receiving a query including search criteria with respect to a parameter concerning
4 network connectivity at the customer sites;
5 querying the database to determine connections between customer sites having
6 network connectivity information satisfying the search criteria included with the query;
7 and
8 rendering the determined connections in a different visual manner than those
9 connections that do not satisfy the search criteria.

1 22. The system of claim 16, wherein the connection information includes
2 information on at least one of connected sites, connection bandwidth, and connection
3 circuit types.

1 23. The system of claim 16, wherein the code further causes the processor to
2 perform:
3 receiving a definition of a buffer region with respect to a selected customer site;
4 querying the database to determine NSP network infrastructure located within the
5 defined buffer region;
6 rendering the buffer region around the rendering of the selected customer site in
7 the map; and
8 rendering the determined NSP network infrastructure within the defined buffer
9 region in the map.

1 24. The system of claim 23, wherein NSP network infrastructure rendered
2 within the defined buffer region is rendered differently than NSP network infrastructure
3 rendered outside of the buffer region.

1 25 The system of claim 24, wherein the code further causes the processor to
2 perform:
3 generating a report identifying at least one of: the network infrastructure located
4 within the buffer region, the NSP managing the identified network infrastructure, and a

5 distance of the identified network infrastructure from the selected customer site for which
6 the buffer region is defined.

1 26. The system of claim 16, wherein the network infrastructure includes
2 network switches and network paths, wherein rendering the representations of the
3 determined network infrastructure comprises rendering representations of the determined
4 switches in the map, and wherein the code further causes the processor to perform:
5 querying the database to determine network paths between the network switches
6 rendered in the map; and
7 rendering the network paths between the network switches in the map.

1 27. The system of claim 26, wherein the map comprises a street map, and
2 wherein the network paths are rendered superimposed over transportation corridors
3 rendered on the map.

1 28. The system of claim 26, wherein the code further causes the processor to
2 perform:
3 receiving user selection of a proposed path between the customer site and one
4 network switch;
5 rendering the proposed path in the map; and
6 generating and rendering information on the proposed path in the map, including
7 information on the distance of the proposed path.

1 29. The system of claim 16, wherein the code further causes the processor to
2 perform:
3 receiving selection of a plurality of customer sites rendered in the map;
4 receiving a definition of parameters of a buffer region with respect to the selected
5 customer sites;
6 determining buffer regions for each of the selected customer sites satisfying the
7 defined parameters for the buffer region;

8 querying the database to determine NSP network infrastructure located within
9 each determined buffer region;
10 rendering each determined buffer region around each selected customer site in the
11 map; and
12 rendering the determined NSP network infrastructure within each defined buffer
13 region in the map.
14

1 30. The system of claim 16, wherein the code further causes the processor to
2 perform:

3 generating a report identifying at least one of: the network infrastructure located
4 within the determined buffer regions; the NSPs managing the identified network
5 infrastructure within the determined buffer regions; and, for each selected customer site, a
6 distance of the identified network infrastructure from the selected customer site within
7 the buffer region for the selected customer site.

1 31. An article of manufacture for causing operations to be performed, wherein
2 the operations comprise:

3 receiving a selection of customer sites;
4 querying a database to determine geographical locations of the selected network
5 sites;
6 rendering, in a graphical user interface, representations of the selected customer
7 sites in a map at the geographical location of the selected sites in the map;
8 receiving selection of at least one network service provider (NSP);
9 querying the database to determine network infrastructure of the selected NSP and
10 geographical locations of the determined network infrastructure; and
11 rendering representations of the determined network infrastructure in a map at the
12 determined geographical locations of the determined network infrastructure to render a
13 visualization of the geographical locations of the selected customer sites and network
14 infrastructure of the selected at least one NSP in the map.

1 32. The article of manufacture of claim 31, wherein the determined network
2 infrastructure comprises at least one of a switch and a network path, and wherein the
3 network infrastructure geographical location comprises at least one of a switch site
4 location and a route of the network path.

1 33. The article of manufacture of claim 31, wherein the map comprises a
2 street map, and wherein the rendered map visualizes transportation corridors, and
3 wherein the rendered customer sites and network infrastructure are visualized
4 superimposed over rendered transportation corridors in the street map.

1 34. The article of manufacture of claim 31, wherein the operations further
2 comprise:
3 receiving user selection of one rendered customer site;
4 querying the database to determine information on the selected customer site; and
5 rendering the determined information on the selected customer site in a dialog
6 box.

1 35. The article of manufacture of claim 31, wherein the operations further
2 comprise:
3 querying connection information in the database to determine connections
4 between the rendered customer sites; and
5 rendering connections between the customer sites in the map to visualize the
6 determined connections.

1 36. The article of manufacture of claim 35, wherein the operations further
2 comprise:
3 receiving a query including search criteria with respect to a parameter concerning
4 network connectivity at the customer sites;
5 querying the database to determine connections between customer sites having
6 network connectivity information satisfying the search criteria included with the query;
7 and

8 rendering the determined connections in a different visual manner than those
9 connections that do not satisfy the search criteria.

1 37. The article of manufacture of claim 35, wherein the connection
2 information includes information on at least one of connected sites, connection
3 bandwidth, and connection circuit types.

1 38. The article of manufacture of claim 31, wherein the operations further
2 comprise:
3 receiving a definition of a buffer region with respect to a selected customer site;
4 querying the database to determine NSP network infrastructure located within the
5 defined buffer region;
6 rendering the buffer region around the rendering of the selected customer site in
7 the map; and
8 rendering the determined NSP network infrastructure within the defined buffer
9 region in the map.

1 39. The article of manufacture of claim 38, wherein NSP network
2 infrastructure rendered within the defined buffer region is rendered differently than NSP
3 network infrastructure rendered outside of the buffer region.

1 40. The article of manufacture of claim 38, wherein the operations further
2 comprise:
3 generating a report identifying at least one of: the network infrastructure located
4 within the buffer region, the NSP managing the identified network infrastructure, and a
5 distance of the identified network infrastructure from the selected customer site for which
6 the buffer region is defined.

1 41. The article of manufacture of claim 31, wherein the network infrastructure
2 includes network switches and network paths, wherein rendering the representations of

3 the determined network infrastructure comprises rendering representations of the
4 determined switches in the map, further comprising:
5 querying the database to determine network paths between the network switches
6 rendered in the map; and
7 rendering the network paths between the network switches in the map.

1 42. The article of manufacture of claim 41, wherein the map comprises a
2 street map, and wherein the network paths are rendered superimposed over transportation
3 corridors rendered on the map.

1 43. The article of manufacture of claim 41, wherein the operations further
2 comprise:
3 receiving user selection of a proposed path between the customer site and one
4 network switch;
5 rendering the proposed path in the map; and
6 generating and rendering information on the proposed path in the map, including
7 information on the distance of the proposed path.

1 44. The article of manufacture of claim 31, wherein the operations further
2 comprise:
3 receiving selection of a plurality of customer sites rendered in the map;
4 receiving a definition of parameters of a buffer region with respect to the selected
5 customer sites;
6 determining buffer regions for each of the selected customer sites satisfying the
7 defined parameters for the buffer region;
8 querying the database to determine NSP network infrastructure located within
9 each determined buffer region;
10 rendering each determined buffer region around each selected customer site in the
11 map; and
12 rendering the determined NSP network infrastructure within each defined buffer
13 region in the map.

1 45. The article of manufacture of claim 44, wherein the operations further
2 comprise:
3 generating a report identifying at least one of: the network infrastructure located
4 within the determined buffer regions; the NSPs managing the identified network
5 infrastructure within the determined buffer regions; and, for each selected customer site, a
6 distance of the identified network infrastructure from the selected customer site within
7 the buffer region for the selected customer site.